IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF OHIO

OHIO A. PHILIP RANDOLPH INSTITUTE, et al.

Plaintiffs,

v.

LARRY HOUSEHOLDER, Speaker of the Ohio House of Representatives, *et al.*

Defendants.

No. 1:18-cv-00357-TSB-KNM-MHW

Judge Timothy S. Black Judge Karen Nelson Moore Judge Michael H. Watson Magistrate Judge Karen L. Litkovitz

MEMORANDUM IN SUPPORT OF PLAINTIFFS' MOTION IN LIMINE TO EXCLUDE THE TESTIMONY AND REPORTS OF DR. M.V. HOOD III

Pursuant to Federal Rules of Evidence 401, 403, and 702, Plaintiffs respectfully submit this memorandum of law in support of their motion in limine to exclude the proposed testimony and reports of M.V. Hood III. Plaintiffs do not dispute that Hood could, if offering appropriate testimony, qualify under the relevant standard as an expert in political science. However, the vast majority of the opinions offered by Hood in this case do not meet the standard for reliability required under the governing standard.

INTRODUCTION

The introduction of expert testimony is governed by Federal Rule of Evidence 702 and the Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), pursuant to which expert testimony must be qualified, reliable, and relevant to be admissible. "*Daubert* pointed out that Federal Rules 702 and 703 grant expert witnesses testimonial latitude unavailable to other witnesses on the 'assumption that the expert's opinion will have a reliable basis in the knowledge and experience of his discipline." *Kumho Tire Co. v.*

Carmichael, 526 U.S. 137, 148 (1999). A proffered expert witness must be qualified "by knowledge, skill, experience, training, or education." Fed. R. Evid. 702. Where a Court determines that an expert is sufficiently qualified, it then considers whether the offered opinion is relevant and reliable. See, e.g., Rodrigues v. Baxter Healthcare Corp., 567 F. App'x 359, 361 (6th Cir. 2014) ("Yes, the rule requires an expert to be qualified. But no, its requirements do not end there."); Rose v. Truck Ctrs., Inc., 388 F. App'x 528, 534 (6th Cir. 2010) (determining expert qualified, then assessing that opinion unreliable). An expert's testimony must be based on "sufficient facts and data' and '[be] the product of reliable principles and methods." E.E.O.C. v. Kaplan Higher Educ. Corp., 748 F.3d 749, 752 (6th Cir. 2014) (quoting Fed. R. Evid. 702(b), (c)). The proponent of the testimony bears the burden of establishing its admissibility by a preponderance of proof. Pride v. BIC Corp., 218 F.3d 566, 578 (6th Cir. 2000).

ARGUMENT

Defendants retained Dr. Hood "to provide an assessment of Ohio's congressional districts." Declaration of Theresa J. Lee in Support of Plaintiffs' Motion in Limine to Exclude Testimony of Dr. M.V. Hood III ("Lee Decl."), Ex. A (Ex. 1 to 12/17/2018 Hood Deposition) ("Hood Report") at 2. In providing his assessment, Dr. Hood makes a number of claims by simply reproducing "summary statistics" provided to him by counsel for the Legislative Defendants. Lee Decl., Ex. B (Transcript of 12/17/2018 Hood Deposition) ("Hood Dep.") at 21:2-22:3. He further makes conclusions or "inferences" that do not follow from the underlying materials, *see*, *e.g.*, Hood Dep. at 165:15-166:7, including by making cause and effect assertions in a way that he would not in conducting his academic research, *see id.*. at 161:11-18. He also makes data selection choices that are contrary to his description of the data used and for which he offers no underlying reason for the particular selection, and by so making, skews the

data to support his assertions. Hood Report at 11-12; Hood Dep. at 131:16-132:3. Dr. Hood also states "facts" in his report that are not in the record, and he either provides no citation at all or an incomplete one, such that even he is unclear as to what information is reflected in the "source." Hood Report at 18-22; Hood Dep. at 154:23-157:6. Finally, he purports to offer an opinion on Plaintiffs' standing, clearly a legal determination to be made by the Court, which he is not qualified to offer, *see* Hood Dep. at 179:2-9. A single one of these errors may perhaps have gone to the weight of Dr. Hood's opinions, not their admissibility. However, taken together, they amply demonstrate that Dr. Hood has not offered reliable opinions admissible under Rule 702. Rather, his report appears to be a catch-all directed by counsel for the Defendants.

Dr. Hood's report proceeds in eight substantive parts, which each suffer from different particular errors that utterly undermine the reliability of his work. Due to the grab bag nature of Dr. Hood's report, this motion considers each of the parts in turn.

A. The opinions offered in Section III of Dr. Hood's Report and any related testimony are unreliable and should be excluded.

In Section III of his Report, Dr. Hood simply reproduces, in a format that matches his font selection, "summary statistics" that were provided to him by counsel for the Defendants. He asserts that he is assessing the challenged map and the Proposed Remedial Plan on a number of traditional criteria, including population equality, incumbent pairings, compactness, and communities of interest. Hood Report 3-10, Tables 1-3, 5-10. However, upon questioning, Dr. Hood indicated that each of these were the "summary statistics" provided to him by Defendants' counsel. Hood Dep. at 20:3-12; 21:2-22:3. Dr. Hood did not compute the population or compactness of any of the congressional districts, geo-code the incumbents to determine which were paired, or review the maps to determine the number of counties and subdivisions split. *Id.*

at 21:2-22:3. As he did not conduct any analysis to determine if the summaries provided to him were accurate, he is not making use of any specialized knowledge that would assist the Court.

Additionally, in his deposition, it became clear that the summary statistics provided included at least one error, which undermined his "conclusion" that the challenged map improved upon the 2002 map in one of these areas of traditional redistricting. Hood Dep. at 74:6-76:23; 78:3-6. The summary report regarding the number of counties split by the 2002 map indicated that 25 counties were split, but listed three counties that were only contained in one congressional district, for a real total of 22 split counties. Lee Decl., Ex. C (Ex. 10 to 12/17/2018 Hood Deposition); Hood Dep. at 74:6-76:23. Based on this incorrect summary information, he then wrongly concluded that in some aspects the challenged plan "made slight improvements over" the 2002 plan. Hood Report at 7; *see* Hood Dep. at 79:17-80:12. Simply reprinting "summary statistics" from an interested party plainly is not a "reliable principle[or] method." Fed. R. Evid. 702(c). For this reason alone, even leaving out the errors included in those summaries, Section III of Dr. Hood's report is not sufficiently reliable for admission under Rule 702.

The only of the Tables in the Section that Dr. Hood generated were Tables 5 and 11, which considered what percentage of the previous district was retained in the new district for each 2011 incumbent. Hood Dep. at 22:4-11. However, as Dr. Hood did not geocode the residences of the 2011 incumbents, *id.* at 21:20-22:3, (nor did he provide the incumbent addresses used by Defendants' counsel to the Plaintiffs, as is required under Rule 26), he cannot reliably testify that the core retention values he calculated are correct. Moreover, Dr. Hood's conclusion with respect to the core retention values is contrary to that he has published in his peer-reviewed work. In his report, Dr. Hood concluded that because the challenged map had

average core-retention of 55.6%, ¹ this demonstrated that the map was drawn for the purpose of incumbent protection. Hood Report at 5. However, in describing an average core retention rate for a congressional redistricting in Georgia, Dr. Hood described an average core retention rate of 68.7% as a map that "greatly altered the relationship between representatives and constituents." Lee Decl., Ex. D (Ex. 11 to 12/17/2018 Hood Deposition) at 210. While Dr. Hood noted that at issue in the article was mid-decade redistricting, and thus a different case, he could not testify to any reason why 55.6% did not likewise "greatly alter[]" the relationship. Hood Dep. at 146:9-149:4. He could not point to any specific percentage that would be considered demonstrative of incumbency protection, and would have the Court take it on just his say-so. Courts should not "admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *Kumho Tire Co.*, 526 U.S. at 157 (internal citations omitted).

Finally, in its analysis of the Proposed Remedial Plan, this Section does not offer the trier of fact any help in understanding the evidence in this case. In an attempt to paint the Proposed Remedial Plan as defective (even though it substantially betters the challenged map on all traditional redistricting criteria), Dr. Hood assessed the Proposed Plan based on the 2011 incumbents. As Dr. Hood himself testified, the Proposed Remedial Plan is of course only presented for future use, Hood Dep. at 90:12-23, and many of the 2011 incumbents are no longer incumbents, *id.* at 90:24-91:20. As the Proposed Plan is offered as a forward looking alternative, it explicitly considered the incumbents presently in office to avoid incumbent pairing. Assessing the Proposed Plan for future use based upon incumbents long out of office simply does not make sense, and thus does not "help the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702(a).

¹ Dr. Hood's report finds a core retention rate of 55.7%, but two of the digits in the rate for District 5 are transposed. Hood Report at 6 (reads 56.4%, but according to Dr. Hood's data should be 54.6%).

B. The opinions offered in Section IV of Dr. Hood's report and any related testimony are unreliable and should be excluded.

In Section IV, Dr. Hood recites a now familiar refrain that political geography is the cause of the gerrymandered map. Hood Report at 10-13. However, the metric he uses to support this conclusion does no such thing. Dr. Hood presents the Moran's I Coefficient for Ohio as if it demonstrates that natural packing is the cause of the composition of Ohio's gerrymandered districts. *Id.* at 13. However, the coefficient shows only that Democrats live near Democrats, and Republicans live near Republicans. Hood Dep. at 101:25-102:13. While this may be interesting in theory, it does not show, as Dr. Hood admits, that Democrats live near Democrats at greater rates than Republicans live near Republicans, *id.* at 104:23-105:6, so there is nothing to say that this spatial relationship underlies the congressional districts' compositions. Thus, this discussion does nothing to "help the trier of fact to understand the evidence or to determine a fact in issue," Fed. R. Evid 702(a), and in fact tends to obscure that it is actually a measurement of both Republicans and Democrats living near their co-partisans.

Moreover, that Democrats tend to live in more dense areas further does nothing to assist the Court. The facts themselves belie that natural clustering lead to the creation of the partisan gerrymander at issue. In Dr. Hood's own Figures, it is clear that it is not the presence of Democratic VTDs near one another that lead to Ohio's gerrymander. Looking at Dr. Hood's Figure 4, it is plain that Democrats living in and around the city of Cincinnati did not naturally cause the partisan make-up of the districts there. Rather, the line between Districts 1 and 2 snakes through the City of Cincinnati, cleaving it in two. On its face, this is clearly not "natural packing." *See also* Hood Report, Figure 5 (District 11 includes much of Cleveland and then juts to the south, through Republican VTDs to then pick up part of Akron. This too is not "natural packing" but the deliberate packing of geographically disparate groups of Democrats into one

District). The conclusions offered and Figures generated in aid of Section IV are simply not grounded in the facts in this case and must be excluded for that reason. Fed. R. Evid. 702(d). *See Pride*, 218 F.3d at 578 ("Rule 702 requires that the expert's testimony assist the trier of fact. . . . [the] testimony must 'fit' the facts of the case.")

C. The partisan index used in Sections IV, V, and VIII of Dr. Hood's Report and in his 2018 Supplemental Report, the opinions based upon it, and any related testimony are unreliable and should be excluded.

In Section IV, Dr. Hood described his partisan index as one "based on statewide, contested elections for the decade preceding the 2010 redistricting-cycle." Hood Report at 11. He then went on to identify the statewide races, but notably excluded five of the "statewide, contested elections [in] the decade preceding the 2010 redistricting-cycle." Dr. Hood left out the 2002 statewide races, and offered no explanation for why he did so. *Id.* at 11-12, Table 12; Hood Dep. at 131:16-132:3. Moreover, the 2002 results data was plainly available to the General Assembly at the time of the redistricting² and were even included within the Hood data files Defendants provided to Plaintiffs in accordance with Federal Rule of Civil Procedure 26.

This selective use of data wholly undermines the reliability of the conclusions offered therefrom in Sections IV, V, and VIII, and the 2018 Supplemental Report. Dr. Hood uses this index in Section V to assert that from the perspective known at the time of its passage the challenged map was thought to be competitive, and that the partisan composition barely differs

² In addition to the plain temporal fact that 2002 election results were available in 2011, evidence adduced in discovery demonstrates that in fact the 2002 election data was on hand and used by the map drawers at the time of redistricting. *See, e.g.*, Lee Decl., Ex. H (Exhibit 14 to Deposition of Heather Blessing) (screenshot of historical election data in map drawing software); *id.*, Ex. I (excerpts of transcript of Deposition of Heather Blessing) at 133:09-21 (testifying that the codes in Exhibit 14 refer to "historical election data" and that the number indicates the year); *id.*, Ex. J (excerpts of transcript of Deposition of John Morgan) at 44:02-44:17 (confirming he used election results data for elections from 2002-2010); *id.*, Ex. K (Exhibit 25 to Deposition of Clark Bensen) (includes individual election results for prior decade); *id.*, Ex. L (excerpts of transcript of Deposition of Clark Bensen) at 165:11-166:13, 168:2-6 (testifying that Exhibit 25 was created in the course of 2011 redistricting and generated from a Maptitude file to which map drawers had access).

from the Proposed Plan. When an index actually "based on statewide, contested elections for the decade preceding the 2010 redistricting-cycle," Hood Report at 11, is used, it is evident that it would have been known at the time that the challenged map vastly favored Republican voters at the expense of Democratic voters. Compare Hood Table 15 with one using an index with the full set of races:

Comparison to Hood Table 15. Actual Partisan Classification of Ohio's Congressional Districts³

District	Percent Republican	Classification
1	60.3%	Safe Republican
2	59.7%	Safe Republican
3	40.8%	Safe Democratic
4	59.6%	Safe Republican
5	59.9%	Safe Republican
6	51.4%	Competitive, Leans Republican
7	55.3%	Safe Republican
8	64.2%	Safe Republican
9	39.8%	Safe Democratic
10	56.1%	Safe Republican
11	25.4%	Safe Democratic
12	60.2%	Safe Republican
13	38.6%	Safe Democratic
14	54.3%	Competitive, Leans Republican
15	57.2%	Safe Republican
16	55.7%	Safe Republican

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³ This Table uses the same "Classification" structure described in Hood Report at 14 and used in his Table 15. The Index used to identify the "Percent Republican" is the same as that described in Hood Report at 11 n.16 except with the 2002 races included, that is: The exact formula is as follows: [(Republican Vote 2002 Governor/Total Two-Party Vote Governor)+(Republican Vote 2002 Attorney General/Total Two-Party Vote Attorney General)+(Republican Vote 2002 Auditor/Total Two-Party Vote Auditor)+(Republican Vote 2002 Secretary of State/Total Two-Party Vote Secretary of State)+(Republican Vote 2002 Treasurer/Total Two-Party Vote Treasurer)+ (Republican Vote 2004 President/Total Two-Party Vote President)+(Republican Vote 2004 U.S. Senate/Total Two-Party Vote U.S. Senate)+(Republican Vote 2006 U.S. Senate/Total Two-Party Vote U.S. Senate)+(Republican Vote 2006 Governor/Total Two-Party Vote Governor)+(Republican Vote 2006 Attorney General/Total Two-Party Vote Attorney General)+(Republican Vote 2006 Auditor/Total Two-Party Vote Auditor)+(Republican Vote 2006 Secretary of State/Total Two-Party Vote Secretary of State)+(Republican Vote 2006 Treasurer/Total Two-Party Vote Treasurer)+(Republican Vote 2008 President/Total Two-Party Vote President)+(Republican Vote 2010 U.S. Senator/Total Two-Party Vote U.S. Senator)+(Republican Vote 2010 Governor/Total Two-Party Vote Governor)+(Republican Vote 2010 Attorney General/Total Two-Party Vote Attorney General)+(Republican Vote 2010 Auditor General/Total Two-Party Vote Auditor)+ (Republican Vote 2010 Secretary of State/Total Two-Party Vote Secretary of State)+(Republican Vote 2010 Treasurer/Total Two-Party Vote Treasurer)] / 20.

Once the available data is used, the outcome for the challenged map is exactly as expected and exactly as it has performed in the elections under it: 12 Republican seats, and 4 Democratic seats. Once the available data is used, it is also clear that this is not a map characterized by competitive districts.

Dr. Hood leaves out an election year that should be included based on his own description of the index (one "based on statewide, contested elections for the decade preceding the 2010 redistricting-cycle"). Hood Report at 11, *see also* Lee Decl., Ex. E (Hood Suppl. Rep.) at 7 (using same pre-redistricting index). When this omitted data is applied, it undermines the exact conclusion he is aiming to draw. Taken together, this demonstrates that his index and all related testimony is not based on the "sufficient facts or data" necessary for admission of expert opinion testimony under Federal Rule of Evidence 702.

D. The opinions offered in Section VI of Dr. Hood's Report and any related testimony are unreliable and should be excluded.

Two overarching errors in Section VI make it unreliable, and thus should be excluded, as failing to meet the requirement of Federal Rule of Evidence 702(c): (1) there is no source information for any of the purported facts included therein, thus making it unable to be checked, and (2) Dr. Hood draws inferences from the listed information in a way contrary to the methods that should underlie such work. In this Section, Dr. Hood lists the purported previous offices held by candidates for office and amounts of money raised. He does not provide any citations whatsoever for the previous offices held, Hood Report at 19, nor can he recall what the sources were, Hood Dep. at 154:23-156:6. For the money raised, he references two websites at the most general URL address, but does not provide any information regarding how he extracted the information therefrom. Moreover, with respect to this information he does not know what information is reflected by the "source." *Id.* at 156:7-157:6.

The second error of this Section is even more serious—totally undermining the reliability of the opinions offered. Throughout Section VI, Dr. Hood concludes that the lack of experience by the challenging candidates and the lower amounts of money they raised account for their losses. Hood Report at 19, 22. However, Dr. Hood does nothing more than list the purported experience and campaign contributions in support of this assertion. He did not consider the all too likely fact that the district lines themselves were the cause of such less-experienced candidate recruitment and lower campaign contributions. Hood Dep. at 157:7-160:7. He further admitted that the district lines themselves could have been the cause of these other election related factors. Id. at 160:19-161:10. In his academic work, Dr. Hood is "very cautious about making cause and effect claims" even when he completed statistical modeling to demonstrate the relationship. *Id.* at 161:11-17. He completed no such multivariate analysis here, purportedly because there were a limited number of data points. Hood Report at 23 n.30, Hood Dep. at 161:18-20. However, in his published work, he regularly completes multivariate analyses across congressional plans. See, e.g., Lee Decl., Ex. D at 207-08. When questioned on just this ground, he pointed to the consideration of VTDs within the district in that particular article, but admitted that Ohio also has VTDs. Hood Dep. at 161:21-162:15.

By failing to consider alternate causes—and worse still, the very cause that Plaintiffs challenge in this case—the opinions presented in Section VI of Dr. Hood's report are unreliable and should be excluded. *See Best v. Lowe's Home Ctrs., Inc.*, 563 F.3d 171, 177 (6th Cir. 2009) (failure to consider other possible causes cautions against certifying an expert).

E. The opinions offered in Section VII of Dr. Hood's Report and any related testimony are unreliable and should be excluded.

In Section VII, while Dr. Hood conducts a regression equation with respect to the historical trajectory of the efficiency gap in Ohio, he then makes a giant inference therefrom: that

is, that the efficiency gap amounts to a measurement of proportional representation. It is clear on the face of all of the academic work on the efficiency gap that this is not what it measures. Dr. Hood's work in Section VI does not offer any analysis that grapples with this literature, and instead follows with a litany of "what if" speculation, for which he offers no grounding or expertise. See Nelson v. Tenn. Gas Pipeline Co., 243 F.3d 244, 250 (6th Cir. 2001) ("knowledge' connotes more than subjective belief or unsupported speculation"). Dr. Hood did not conduct any independent analysis of partisan bias metrics in Ohio. Hood Dep. at 166:9-167:2. He speculates about the application of the efficiency gap with respect to both uncontested elections and to unequal turnout elections, Hood Report at 26 nn.35, 38, as though they were unexplored, while both were considered and analyzed in the Report of Plaintiffs' expert, Dr. Warshaw, which Dr. Hood had and reviewed at the time he wrote his report and reviewed. Hood Dep. at 10:5-21; Lee Decl., Ex. F (Ex. 4 to 12/17/2018 Hood Deposition); see also Hood Dep. at 167:13-168:6. Neither Dr. Hood's unfounded inference regarding the efficiency gap, nor his disjointed listed of questions demonstrates any "specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702(a). These speculative questions are not admissible opinion evidence. Tamraz v. Lincoln Elec. Co., 620 F.3d 665, 671 (6th Cir. 2010) ("nothing in his testimony suggests the sort of 'knowledge' on this point that the Rules require—only speculation, which is generally inadmissible").

Additionally, while not related to the efficiency gap, Dr. Hood also includes in this Section VII the confounding assertion, "Professor Cho's districting simulations are based on the idea that the partisan seat distribution should roughly mirror the state's overall political makeup." Hood Report at 25 n.33. Dr. Cho's report, of course, does no such thing (it rather shows millions of possibilities that could occur using a partisan index based on actual elections). Moreover, Dr.

Hood cites Dr. Cho's entire report for this proposition, and could not even answer what about her report, opinions, or analysis lead him to such a conclusion. Hood Dep. at 165:15-166:8 ("that's the inference I'm drawing, I guess). For an expert opinion to be admissible, it must logically follow. *See R.C. Olmstead, Inc., v. CU Interface, LLC*, 606 F.3d 262, 271 (6th Cir. 2010) (expert opinion must "outline a line of reasoning arising from a logical foundation"). Minimally, the expert must be able to explain to the court why his inferences should be made. *See Kumho Tire Co.*, 526 U.S. at 157 (courts must not admit opinion evidence on the "*ipse dixit* of the expert"). Dr. Hood does neither of those things here and thus his opinion regarding Dr. Cho's work should be excluded.

F. The opinions offered in Section VIII of Dr. Hood's Report and any related testimony are unreliable and should be excluded.

In Section VIII, Dr. Hood contends that it is the "shifting partisanship" in Ohio that has led to the outcomes under the challenged map (as opposed to the clear 12-4 split easily known at the time, as demonstrated *supra* at Section C, "Comparison to Hood Table 15"). However, the same data selection bias that plagued the use of the index in Sections IV and V makes it insufficient to support Dr. Hood's conclusions in Section VIII as well. It is therefore inadmissible as it fails to meet the requirements of Federal Rule of Evidence 702(c).

This entire Section, as well as Section IV in Dr. Hood's Supplemental Report, use insufficient data in order to conclude that a "substantial partisan shift" occurred in Ohio after the challenged redistricting. Lee Decl., Ex. E at 7. As discussed above, by leaving the 2002 statewide races out of the partisan index, Dr. Hood understates the Republican composition of the state prior to redistricting, in an effort to suggest that the entrenched 12-4 Republican outcome in the congressional delegation since 2012 is caused by this supposedly "substantial" shift instead of by the construction of the challenged map. When applying actually sufficient

(and readily available) data, there is only a 2.2 % shift in the Republican share of the vote total for statewide races.⁴ This is not "substantial" and does not explain the outcome under the congressional map.⁵

Additionally, Dr. Hood's selective use of data (that favors his—or Defendants'—predetermined conclusions) is demonstrated in yet another way in this Section. In addition to Dr. Hood's failure to include 2002 in Figure 1, he commits yet another data selection error in order to bulk up his claim of a partisan shift. While he describes his Figure 7 as being "analogous" to Figure 1, he does not include all of the statewide races in determining the partisan percentage to assign to each VTD in the post-redistricting period. Dr. Hood leaves out three of the five 2014 statewide races. Hood Report at 27 n.39 (the full list of races held between 2012-2016 is laid out in the very next footnote, n.40). He includes the two most Republican of the 2014 statewide races, and leaves out the other three. Lee Decl., Ex. G (Ex. 17 to 12/17/2018 Hood Deposition); Hood Dep. at 171:8-21. This is part of the pattern of data selection choices throughout Dr. Hood's report that serves to understate the Republican partisan make-up of Ohio prior to the redistricting and then overstate the Republican partisan make-up of Ohio following the

⁴ Using the official elections results from the website of Defendant Secretary of State, and applying the formula identified by Dr. Hood and updated *supra* at n.3 demonstrates the following shift, updating Table 5 from Dr. Hood's Supplemental Report:

Years	Percent Republican	Difference from Pre-Redistricting (2002-2010)
2002-2010	52.8%	
2012-2016	57.5%	4.7%
2012-2018	55.0%	2.2%

These post-redistricting percentages are slightly different than those presented by Dr. Hood. Dr. Hood did not provide underlying data demonstrating how he reached his percentages, or any underlying data at all for his full set of 2012-2018 races, so Plaintiffs are left to guess why the discrepancy exists.

⁵ A quick look at the Table *supra* at 8 demonstrates that a +2.2% Republican shift does not alter the partisan breakdown known at the time of the redistricting in any of the congressional districts. Adding 2.2% Republican to any of these districts' assigned percentages does not shift a single seat between the parties. Even leaving aside 2018, a +4.7% Republican shift does nothing to alter the partisan breakdown known at the time as demonstrated in the Table *supra* at 8.

redistricting. Dr. Hood selectively uses data to bolster his claim that there is a "substantial" partisan shift in Ohio, in an effort to assert that this is the true reason that a purportedly "competitive" map became entrenched 12-4 Republican. His insufficient use of data and unreliable methods make these opinions inadmissible under Federal Rule of Evidence 702.

G. Dr. Hood is not qualified to offer an opinion on whether plaintiffs have standing and the other opinions offered in Section IX of Dr. Hood's Report and any related testimony are unreliable and should be excluded.

Dr. Hood frames Section IX as contemplating whether Plaintiffs have standing. Dr. Hood admittedly is not an expert in federal court subject matter jurisdiction, nor is he an attorney. Hood Dep. at 179:2-9. He is not qualified to offer any such opinion.

To the extent Dr. Hood attempts to frame this Section as something other than that outside his expertise, it offers the Court no "help . . . to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702(a). He simply lists a smattering of speculative questions, repeats what Dr. Cho's simulations demonstrated for certain of the Plaintiffs, and relists the partisan percentages (already amply discussed as faulty above) for the districts in which certain Plaintiffs live. This simply is not the sort of specialized knowledge or reliable opinion that offers anything to the Court, and so should not be admitted under Federal Rule of Evidence 702. *See Tamraz*, 620 F.3d at 671 (rejecting speculation); *Nelson*, 243 F.3d at 250 (same).

H. Dr. Hood's Section X conclusions are utterly unreliable and should be excluded.

As discussed above, Dr. Hood's report is riddled with unreliable methods, ungrounded conclusions, conclusions reached in a manner contrary to his academic work, and insufficient data. For all of these reasons, the "conclusions" offered in his Section X are utterly unreliable and should not be considered by this Court.

CONCLUSION

For all of the reasons discussed above, Dr. Hood's proposed opinion evidence does not have the required reliable basis demanded of expert testimony, and should be excluded.

January 18, 2019

Respectfully submitted,

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